

# *Audit Report*



## **Policies and Procedures Used for Iraq Relief and Reconstruction Fund Project Management - Construction Quality Assurance**

**Report No. SIGIR 05-012**

**July 22, 2005**

**Office of the Special Inspector General for Iraq Reconstruction**

Report Documentation Page				Form Approved OMB No. 0704-0188	
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1. REPORT DATE <b>22 JUL 2005</b>		2. REPORT TYPE		3. DATES COVERED <b>00-00-2005 to 00-00-2005</b>	
4. TITLE AND SUBTITLE <b>Policies and Procedures Used for Iraq Relief and Reconstruction Fund Project Management - Construction Quality Assurance</b>				5a. CONTRACT NUMBER	
				5b. GRANT NUMBER	
				5c. PROGRAM ELEMENT NUMBER	
6. AUTHOR(S)				5d. PROJECT NUMBER	
				5e. TASK NUMBER	
				5f. WORK UNIT NUMBER	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) <b>Office of the Special Inspector General for Iraq Reconstruction, 400 Army Navy Drive, Arlington, VA, 22202-4704</b>				8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)				10. SPONSOR/MONITOR'S ACRONYM(S)	
				11. SPONSOR/MONITOR'S REPORT NUMBER(S)	
12. DISTRIBUTION/AVAILABILITY STATEMENT <b>Approved for public release; distribution unlimited</b>					
13. SUPPLEMENTARY NOTES					
14. ABSTRACT					
15. SUBJECT TERMS					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT <b>Same as Report (SAR)</b>	18. NUMBER OF PAGES <b>14</b>	19a. NAME OF RESPONSIBLE PERSON
a. REPORT <b>unclassified</b>	b. ABSTRACT <b>unclassified</b>	c. THIS PAGE <b>unclassified</b>			



## **SPECIAL INSPECTOR GENERAL FOR IRAQ RECONSTRUCTION**

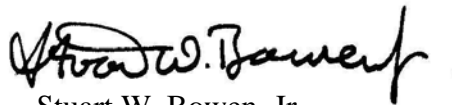
July 22, 2005

**MEMORANDUM FOR DIRECTOR, PROJECT AND CONTRACTING OFFICE  
COMMANDER, GULF REGION DIVISION, U.S. ARMY  
CORPS OF ENGINEERS**

**SUBJECT: Policies and Procedures Used for Iraq Relief and Reconstruction Fund  
Project Management - Construction Quality Assurance  
(Report No. SIGIR 05-012)**

We are providing this audit report for your information and use. We performed the audit in accordance with our statutory duties contained in Public Law 108-106, as amended, which mandates the independent and objective conduct of audits relating to the programs and operations funded with amounts appropriated or otherwise made available to the Iraq Relief and Reconstruction Fund. Public Law 108-106, as amended, requires that we provide for the independent and objective leadership and coordination of and recommendations on policies designed to promote economy, efficiency, and effectiveness in the administration of such programs and operations and to prevent and detect waste, fraud, and abuse.

This report does not contain recommendations, therefore, no written response to this report is required. We appreciate the courtesies extended to our staff. For additional information on this report, please contact Mr. James P. Mitchell at [jim.mitchell@sigir.mil](mailto:jim.mitchell@sigir.mil) or at (703) 428-1100. For the report distribution, see Appendix D.



Stuart W. Bowen, Jr.  
Inspector General

# **Special Inspector General for Iraq Reconstruction**

**Report Number SIGIR 05-012**

(Project No. D2005-DCPAAP-0005)

**July 22, 2005**

## **Policies and Procedures Used for Iraq Relief and Reconstruction Fund Project Management – Construction Quality Assurance**

### **Executive Summary**

**Introduction.** In May 2005, we initiated an audit to determine whether the policies, procedures, and internal controls used by U.S. government organizations resulted in the effective management of Iraq reconstruction projects. This audit report is the first of a series of reports addressing policies and procedures used by U.S. government organizations within Iraq to manage reconstruction projects funded by the Iraq Relief and Reconstruction Fund. This report discusses policies and procedures used for construction quality management.

**Objective.** The objective of this audit was to identify the policies, procedures, and internal controls established by U.S. government organizations for monitoring and reviewing Iraq reconstruction projects.

This information was obtained as part of a broader review of the effectiveness of the U.S. government's policies, procedures, and internal controls, and whether those policies, procedures, and internal controls are adequately coordinated by and among U.S. government organizations and sufficiently consistent for the effective management and timely completion of Iraq reconstruction projects. We plan additional reviews to determine the effectiveness of these policies, procedures, and internal controls and the adequacy of their coordination.

**Results.** The Project and Contracting Office and the U.S. Army Corps of Engineers, the two major organizations involved in Iraq Relief and Reconstruction Fund projects, have issued written policies and procedures for establishing and managing construction quality management programs for reconstruction projects funded by the Iraq Relief and Reconstruction Fund.

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# Background

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## Introduction

In May 2005, we initiated an audit to determine whether the policies, procedures, and internal controls used by U.S. government organizations resulted in the effective management of Iraq reconstruction projects. This audit report is the first of a series of reports addressing policies and procedures used by U.S. government organizations within Iraq to manage reconstruction projects funded by the Iraq Relief and Reconstruction Fund (IRRF). This report discusses policies and procedures used for construction quality management.

**Construction Quality.** Obtaining quality construction is a combined responsibility of the construction contractor and the government. The contract documents should specify, establish, and clearly define the quality of materials and workmanship required for a construction project. Construction contractors must comply with the contract's terms and produce the required product. Certain civil works structures specify a construction procedure in lieu of an end-product. In such instances, contractors are responsible for the specified procedure and the government must verify design assumptions, project control, and assure the end-product quality.

Contractors are responsible for all activities necessary to manage, control, and document work so as to ensure compliance with the contract terms, plans, and specifications. Accordingly, the contractor develops and implements a contractor quality control system to manage, control, and document all construction activities and other functions related to delivering quality construction.

**Government Quality Assurance.** Government quality assurance is the process by which the government assures end product, project, or specified procedural quality. The government quality assurance process starts well before construction and continues through acceptance of completed construction. While government quality assurance is required on all construction contracts, the extent of government quality assurance activity should be commensurate with the value and complexity of the contracts involved. In any case, effective monitoring and review of construction activity by the government is paramount to ensure that completed construction projects are compliant with contract specifications.

**Management of Iraq Reconstruction Projects.** The Project and Contracting Office (PCO) and the U.S. Army Corps of Engineers (USACE) are the two major organizations involved in the management of IRRF related projects. The PCO is responsible for all activities associated with asset, financial, program, and project management and for managing both construction and non-construction activities.

## Objective

The objective of this audit was to identify the policies, procedures, and internal controls established by U.S. government organizations for monitoring and reviewing Iraq reconstruction projects.

This information was obtained as part of a broader review of the effectiveness of the U.S. government's policies, procedures, and internal controls, and whether those policies, procedures, and internal controls are adequately coordinated by and among U.S. government organizations and sufficiently consistent for the effective management and timely completion of Iraq reconstruction projects. We plan additional reviews to determine the effectiveness of these policies, procedures, and internal controls and the adequacy of their coordination.

For a discussion of the audit scope, methodologies, and prior coverage, see Appendix A. For definitions of the acronyms used in this report, see Appendix C. For a list of the audit team members, see Appendix E.

# **Policies and Procedures**

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The PCO and the USACE, the two major organizations involved in IRRF projects, have issued written policies and procedures for establishing and managing construction quality management programs for reconstruction projects funded by the IRRF.

## **Project and Contracting Office**

The PCO manages approximately \$13 billion of the IRRF program, of which approximately \$8.7 billion has been apportioned for construction projects, and is responsible for all activities associated with construction. Its policies and guidance for establishing construction quality management procedures are detailed in its standard operating procedures. Between June and December 2004, the PCO issued more than 100 standard operating procedures, and we identified 42 that were related to construction and contracting quality management. The procedures range from conducting construction quality control and assurance inspections to final inspection, acceptance, and transfer of construction. According to a senior PCO official, these procedures supplement the USACE regulation, which also applies to PCO managed projects. A list of the PCO Standard Operating Procedures that apply to construction quality management is provided in Appendix B.

## **U.S. Army Corps of Engineers**

USACE Regulation 1180-1-6, "Construction Quality Management," September 30, 1995, provides the general policy and guidance for establishing quality management procedures in the execution of USACE construction projects. The regulation is based on requirements in the Federal Acquisition Regulation and applies to all USACE elements, major subordinate commands, districts, and field operating activities responsible for awarding and supervising construction contracts. Essentially, the regulation recognizes that obtaining quality construction is a combined responsibility of the construction contractor and the government. On the government side, the process starts before construction and includes reviews of plans and specifications for biddability, constructability, operability, and environmental responsibility; plan-in-hand site reviews; coordination with using agencies or local interests; establishment of performance periods and quality control requirements; field office planning; preparation of quality assurance plans; and reviews of quality control plans. During construction, the government is responsible for enforcement of contract clauses, maintenance of quality assurance and quality control inspection and work records, and acceptance of completed construction.

On the contractor side, contractors are responsible for all activities necessary to manage, control, and document work so as to ensure compliance with the contract terms and specifications. The contractor's responsibilities include ensuring adequate quality control services are provided for work accomplished on- and off- site by the contractor, suppliers, subcontractors, technical laboratories, and consultants. The work activities include safety, submittal management, and all other functions relating to the requirement for quality construction.



## Appendix A. Scope and Methodology

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To obtain information on construction quality management policies and procedures, we reviewed portions of the Federal Acquisition Regulation and the U.S. Army Corps of Engineers Regulation 1180-1-6, “Construction Quality Management,” September 30, 1995, applicable to construction quality management and discussed these regulations with professional engineers experienced in Iraq reconstruction<sup>1</sup>.

We also reviewed the Project and Contracting Office’s Standard Operating Procedures Index to identify those procedures applicable to construction quality management and obtained and reviewed all applicable procedures for completeness. We also discussed these procedures with senior Project and Contracting Office officials.

We conducted this performance audit from May through July 2005, in accordance with generally accepted government auditing standards.

**Scope Limitation.** We did not test the adequacy of the Federal Acquisition Regulations, the U.S. Army Corps of Engineers regulation, or the Project and Contracting Office Standard Operating Procedures. We plan to test the adequacy of regulations, policies, procedures, and internal controls and the implementation of that guidance in a series of on-site reviews and will report our results in a future audit reports.

**Prior Coverage.** There were no audits performed in the past five years with the same or similar objectives as this audit.

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<sup>1</sup> The professional engineers were the Project and Contracting Office’s Deputy for Operations; the Project and Contracting Office Government Water Sector Project Manager; and the Special Inspector General for Iraq Reconstruction’s Senior Project Technical Manager.

## Appendix B. Project and Contracting Office Standard Operating Procedures

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<b>Updated: 3/31/05</b>		
	PROCEDURE NUMBER	EFFECTIVE DATE
<b>Contracting</b>		
Contracting primer	CM-100	11/05/04
Contractor invoicing	CM-101	06/30/04
Evaluate contractor performance and administer fee boards	CM-102	11/05/04
Conduct negotiations of scope and price for db task orders	CM-103	06/30/04
Management of contractor-acquired government property	CM-104	07/05/04
Identification and appointment of contracting officer's representatives	CM-105	11/05/04
Adjust award fee plan evaluation criteria	CM-106	11/05/04
<b>Construction</b>		
Conduct construction contractor quality control and assurance inspection	CN-100	06/20/04
Prepare project construction management plan	CN-101	06/17/04
Contractor quality control and assurance construction deficiency tracking	CN-102	06/29/04
Contractor construction quality control plan	CN-103	06/20/04
Construction contractor quality control assurance mutual understanding meeting	CN-104	06/29/04
Construction submittal review process	CN-105	06/20/04
Biddability, constructability, operability, and environmental reviews	CN-106	06/20/04
Process construction interim payments (cost plus)	CN-107	12/19/04
Accident prevention plan	CN-108	06/20/04
Schedule update and progress payment for firm fixed-price construction	CN-109	12/19/04
Develop construction submittal register	CN-110	06/30/04
Preconstruction conference	CN-111	06/30/04
Processing construction contractor performance evaluations	CN-112	06/30/04
Request for information-construction	CN-113	06/30/04
Preparation of as-built drawings	CN-114	07/05/04
Construction project photographs	CN-115	06/30/04
Develop project security plan	CN-116	06/30/04
Operation and maintenance training	CN-117	06/30/04
Final inspection, acceptance, and transfer of construction	CN-118 Rev 1	12/25/04
Develop operation and maintenance manuals	CN-119	06/30/04
System startup and commissioning	CN-120	07/05/04
Process modification for changes (directed and constructive)	CN-121	07/15/04
Process modification for differing site condition	CN-122	06/30/04
Process modification for excusable delay	CN-123	07/05/04
Process modification for user requested change	CN-124	06/30/04
Designation of procuring, administrative, and termination contracting officers	CN-125	07/05/04

Process suspension of work (ordered and constructive) for construction	CN-126	07/05/04
Resolving contract disputes and claims	CN-127	12/19/04
Terminations for the convenience of the government and for default	CN-128	12/19/04
Beneficial occupancy	CN-129	07/05/04
Task order final payment and closeout (cost plus)	CN-130	12/19/04
Contractor quality control factory testing	CN-131	12/19/04
Warranty repair procedures	CN-132	07/05/04
Accident investigation and reporting	CN-133	06/29/04
Preservation of historical, archeological, and cultural resources	CN-134	07/05/04

## **Appendix C. Acronyms**

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IRRF	Iraq Relief and Reconstruction Fund
PCO	Project and Contracting Office
USACE	U.S. Army Corps of Engineers

## **Appendix D. Report Distribution**

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### **Department of State**

Secretary of State  
Senior Advisor/Coordinator for Iraq  
U.S. Ambassador to Iraq  
Director, Iraq Reconstruction Management Office  
Inspector General, Department of State

### **Department of Defense**

Deputy Secretary of Defense  
Director, Defense Reconstruction Support Office-Iraq  
Under Secretary of Defense (Comptroller)/Chief Financial Officer  
Deputy Chief Financial Officer  
Deputy Comptroller (Program/Budget)  
Inspector General, Department of Defense

### **Department of the Army**

Assistant Secretary of the Army for Acquisition, Logistics, and Technology  
Principal Deputy to the Assistant Secretary of the Army for Acquisition, Logistics,  
and Technology  
Deputy Assistant Secretary of the Army (Policy and Procurement)  
Director, Project and Contracting Office  
Assistant Secretary of the Army for Financial Management and Comptroller  
Commander, U.S. Army Corps of Engineers  
Commander, Gulf Region Division  
Auditor General of the Army

### **Other Defense Organizations**

Director, Defense Contract Audit Agency

### **Other Federal Government Organizations**

Director, Office of Management and Budget  
Comptroller General of the United States  
Inspector General, Department of the Treasury  
Inspector General, Department of Commerce  
Inspector General, Department of Health and Human Services  
Inspector General, U.S. Agency for International Development

# **Congressional Committees and Subcommittees, Chairman and Ranking Minority Member**

## **U.S. Senate**

Senate Committee on Appropriations

    Subcommittee on Defense

    Subcommittee on Foreign Operations

Senate Committee on Armed Services

Senate Committee on Foreign Relations

    Subcommittee on Near Eastern and South Asian Affairs

    Subcommittee on International Operations and Terrorism

Senate Committee on Homeland Security and Governmental Affairs

    Subcommittee on Government Efficiency and Financial Management

    Subcommittee on Financial Management, the Budget, and International Security

## **U.S. House of Representatives**

House Committee on Appropriations

    Subcommittee on Defense

    Subcommittee on Foreign Operations, Export Financing and Related Programs

House Committee on Armed Services

House Committee on International Relations

    Subcommittee on Middle East and Central Asia

House Committee on Government Reform

    Subcommittee on Government Efficiency and Financial Management

    Subcommittee on National Security, Emerging Threats and International Relations

## **Appendix E. Audit Team Members**

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The Office of the Assistant Inspector General for Auditing, Office of the Special Inspector General for Iraq Reconstruction, prepared this audit report. The Office of the Special Inspector General for Iraq Reconstruction staff members who contributed to the report include:

Michael A. Stanka, PE

William J. Whitehead

Lloyd E. Wilson